

AMENDMENTS TO THE CLAIMS

1. (Original) A CO₂ incubator for incubating a culture medium accommodated in an incubation space defined in a storeroom, the CO₂ incubator comprising:

CO₂ gas concentration detection means for detecting a CO₂ concentration in the incubation space,

CO₂ gas concentration setting means for setting the CO₂ gas concentration in the incubation space,

CO₂ gas supply means for supplying a CO₂ gas into the incubation space, and
control means for controlling the CO₂ gas supply means,

wherein the control means executes an operation of proportion, proportion and integration, or proportion and integration and differentiation on the basis of a deviation between the CO₂ gas concentration in the incubation space and a set CO₂ gas concentration value by the CO₂ gas concentration detection means and the CO₂ gas concentration setting means to calculate a CO₂ gas supply time per unit time to the incubation space and a stop time, and supplies a CO₂ gas to the incubation space from the CO₂ gas supply means in accordance with the calculated supply time and stop time.

2. (Original) The CO₂ incubator according to claim 1, wherein the CO₂ gas concentration detection means is constituted of a CO₂ sensor using infrared rays.

3. (Amended) The CO₂ incubator according to claim 1 ~~or~~ 2, wherein a plurality of incubation spaces are disposed and

the control means selects the gas in any incubation space, detects the CO₂ gas concentration of the selected gas by the CO₂ gas concentration detection means, and controls the

supply of the CO₂ gas to each incubation space in accordance with the detected CO₂ gas concentration.

4. (Original) The CO₂ incubator according to claim 3, wherein the control means displays the CO₂ gas concentration detected in each incubation space.

5. (New) The CO₂ incubator according to claim 2, wherein a plurality of incubation spaces are disposed and

the control means selects the gas in any incubation space, detects the CO₂ gas concentration of the selected gas by the CO₂ gas concentration detection means, and controls the supply of the CO₂ gas to each incubation space in accordance with the detected CO₂ gas concentration.